

### **Abstract of the Disclosure**

In a hybrid fiber coax (HFC) cable system, data is communicated upstream from user terminals to a headend of the system to realize various interactive services. The user terminals generate analog modulated signals representing the user data, which populate different channels in a reverse passband of the system. In accordance with the invention, the analog modulated signals are transformed to the corresponding digital baseband signals containing the data. The resulting digital baseband signals are optically transmitted to the headend, thereby efficiently utilizing the limited capacity of the fiber optical portion of the HFC cable system.